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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,402

09/30/2003

Kiu-Hae Jung

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07/12/2007

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

07/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,402	Applicant(s) JUNG ET AL.	
	Examiner Aristotelis M. Psitos	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 27-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 27-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) — | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/21/07 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the code limitations/constraints as furthered defined by claims 4,7,8,11,30 and 31 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

Applicant's arguments filed 10/16/06 have been fully considered but they are not persuasive.

Applicants' are relying upon tables 1 and 2. These are not figures.

Claim Objections

Claims 11, 28-35 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In particular:

a) With respect to claims 11, 32,33 these claims add no further structural limitations to the storage medium – i.e., no further product limitations.

Applicants' attention is also drawn to the 112 rejections as expanded upon below. These claims are drawn to desired results, and NOT TO ANY PRODUCT LIMITATION.

h) Claims 24-26 add no further product limitations.

i) Claims 28- 30 and 34 and 34 add no further apparatus limitations. These claims are drawn to the desired pattern found/contained on the disc. NO further elements are recited in order for any such pattern to be recognized. Furthermore, the size limitations are not drawn to apparatus elements.

Response to Arguments

Applicant's arguments filed/contained in the response of 4/3/07 have been fully considered but they are not persuasive.

With respect to claim 11: this claim relates to the information and NOT to the record medium structure. Hence it fails to further limit the parent claim.

With respect to claims 28-30 and 34,35: these claims DO not further limit any "means" as required – i.e., not written in means plus function language.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are attempting to define non-descriptive functional subject matter, however, they fail to satisfy the requirements of 35 U.S.C. 101 – see MPEP section 2106 under the section (1) – Non-statutory subject matter. In this analysis, the wherein clause of claim (s) 1 and 23 are interpreted as the non-descriptive functional subject matter. The remaining dependent claims fail to make these claims statutory and hence fall accordingly.

Response to Arguments

Applicant's arguments filed 4/3/07 have been fully considered but they are not persuasive.

Applicants' claims are not drawn to the argued "computer readable medium".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that the claims fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 4/3/07. In that paper, applicant has stated the claims are drawn to structural and functional interrelationships between the data structure and the computer software and hardware components that permit the data structure's functionality. This statement indicates that the invention is different from what is defined in the claim(s) because none of the above can be interpreted/inferred from the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The appropriate signal processing steps/elements in order to ...

a) results in the desired pattern as defined in the ultimate wherein clause of claim 1,

b) place/arrange/size the patterns as defined in claims 2-11 is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure.

As presented, independent claim 1, recites a product having a user and additional data areas. These areas have sync patterns. The remainder of the claim is written in a wherein clause reciting a plethora of desired results. These results do not logically follow from the structure, i.e., the user and additional data areas, but are the result of appropriate steps/method/apparatus necessarily required to yield such. Since these steps/apparatus have not been included in the claim, these claims are incomplete/lacking critical element(s).

As far as the claims recite positive limitations, the following rejections are made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. Claims 1,2,3,5,6,9,10,27,28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isozaki et al further considered with Bluthgen/Hirayama et al...

The system to Isozaki et al discloses a record medium having both user data areas, and additional data areas. They are interpreted as the video and audio data areas respectively. These data areas have their own respective sync patterns, not being the same.

The document provides for a plethora of audio channels.

Either Bluthgen/Hirayama et al teach in this environment, additional audio data having an appropriate id/identification component – see figures 17 a-c for instance in Hirayama et al.

It would have been obvious to modify the base system of Isozaki et al with the additional teachings from either Bluthgen/Hirayama et al, motivation is to provide for a plethora of audio languages on a record medium associated with the video (user data), so as to permit a viewer/user select the language of his own choice/desire. Such provides for an increase marketability of the record medium.

The apparatus limitations of claim 27 are present.

With respect to claims, 2,3,5,6,9,10,28 and 29 these are all desired results that if not inherent in the above combined systems or if applicant can convince the examiner that such size/placement locations are not inherent, then obvious thereover.

As is known, appropriate sectoring of information upon a record medium is common. Placing the synch signals at regular intervals is common in this environment. Such regularity is part and parcel of video/audio signal formats and hence equal data sizes, integer multiples of are known. The size of the data area would be a result of the amount of information to be.

Alternatively, OFFICIAL NOTICE IS TAKEN THEREOF

It would have been obvious to modify the base system with such well known formats motivation is to permit the system to be dynamic and act upon already formatted signals.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

5. Claims 11,4,7,8,30,31 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 2, 6,27 and 30 above, and further in view of Roth et al ('335).

The Roth reference is relied upon for the reasons of record, i.e., rll encoding, with various run lengths, i.e., different bodies. Furthermore, the Roth et al reference also discusses rll, with similar and dissimilar constraints.

It would have been obvious to modify the base system as relied upon above in paragraph 4 with the above rll teaching from Roth et al, motivation is to use the appropriate rll encoding technique in order to maximize the data density as required.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Roth et al.

Roth et al system discloses a digital transmission method. This method is used in the field of recording data – see col. 4, lines 3-16. Also see the disclosure starting at col 3 line 1 – till line 30 in col.4. The Roth et al system provides for the placement of appropriate sync signals interleaved between data areas. There is a plethora of additional data areas – see the discussion with respect to figure 4. The first and second sync patterns are believed to be self-evident. And plural patterns disclosed.

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With respect to apparatus claim 27 – such elements, i.e., a recording/reproducing unit is inherently present – i.e., since the overall invention is for recording digital data, obviously a recording unit must be present.

With respect to the controller – such is performed by the CPU element following the overall process/method limitations disclosed.

With respect to claim 28 – first and second locations for the sync signals/patterns are so defined.

With respect to claim 29, data is appropriated transferred – located in data areas as required.

With respect to claims 30 and 31, the d,k constraints are present.

Response to Arguments

Applicant's arguments filed 4/3/07 have been fully considered but they are not persuasive.

With respect to the argument that Roth discloses no method of recording that includes a user data area, an additional data area before or after the user data area having second sync patterns different from the first sync patterns in the user data areas.

The examiner respectfully disagrees.

Roth is drawn to an encoding/decoding system for digital data. Furthermore, the Roth disclosure is replete with references to recording – i.e., writing – see for instance see col. 4 starting at line 36 till line 68, col. 8 lines 45-46 – to wit; A METHOD FOR MAKING A LOWER RESOLUTION RECORDING SYSTEM.

What if not recording does this language refer to?

Furthermore, Roth does disclose recording/reproducing – see for instance col. 1 lines 14-30.

User data areas inherently exist between the sync patterns.

The synch patterns are indeed different – see again col. 4 starting at line 3.

Conclusion

Applicant's attention is further drawn to the following additional cited references:

EP 0899734 – dvd/cd recording having both EFM and efm+ recording capabilities/designation for sync.

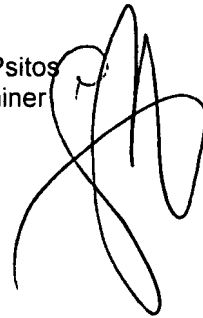
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos
Primary Examiner
Art Unit 2627

A handwritten signature in black ink, consisting of a stylized 'A' followed by a large, loopy flourish that extends downwards and to the right.

AMP